

Substitute for form 1449/PTO

*(Use as many sheets as necessary)*

Sheet 1

of 1

Application Number	09/919,452
Filing Date	July 31, 2001
First Named Inventor	Arthur W. Wetzel
Art Unit	2872
Examiner Name	
Attorney Docket Number	044595-5004

[illegible]

Technology Center 2600

[illegible]

**Examiner  
Signature**

Date  
Considered

9,20,04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*



PTO/SB/08A (02-03)

**JUN 1.2 2003**

PTO/SB/08A (02-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

8-19 Substitute for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**(Use as many sheets as necessary)**

Sheet 1

**1**

of

2

**Complete if Known**

Application Number	09/919.452
--------------------	------------

Filing Date	July 31, 2001
-------------	---------------

First Named Inventor	Arthur W. Wetzel
----------------------	------------------

Art Unit	2872
----------	------

Examiner Name

Attorney Docket Number	044595-5004
------------------------	-------------

## U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
S.A.		US- 5,740,270	04-14-1998	Rutenberg et al.	
S.A.		US- 6,049,421	04-11-2000	Raz et al.	
S.A.		US- 6,172,349	01-09-2001	Katz et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

RECEIVED JUN 16 2003 TECHNOLOGY CENTER 2800

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	Page
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
S.A		DE 199 23 821 A1	11-23-2000	Zeiss		
S.A		JP 11097342	04-09-1999	Shigeo		
S.A		WO 97/04347	02-06-1997	Morphometrix Technologies		

**Examiner  
Signature**

Debi Majhi

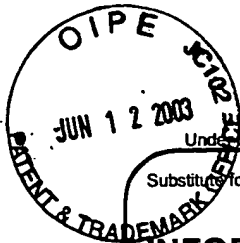
Date  
Considered

9,20,04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**



PTO/SB/08B (02-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number 09/919,452

Filing Date July 31, 2001

First Named Inventor Arthur W. Wetzel

Art Unit 2872

Examiner Name

Attorney Docket Number 044595-5004

Sheet 2 of 2

**OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
S.A.		WEAVER B A ET AL: "Performance of the Ultraheavy Collector of the Trex Experiment" Nuclear Instruments & Methods In Physics Research Section B, November 1998, Pages 409-428, vol. 145, no. 3, North-Holland Publishing Co. Amsterdam, NL.	

RECEIVED  
JUN 16 2003  
TECHNOLOGY CENTER 2800

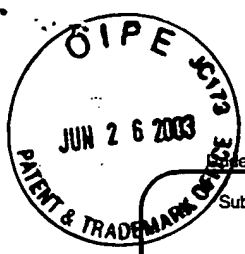
Examiner Signature	<i>S. A. Wetzel</i>	Date Considered	9/20/04
-----------------------	---------------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 1

**Complete if Known**

Application Number	09/919,452
Filing Date	July 31, 2001
First Named Inventor	Arthur W. Wetzel
Art Unit	2872
Examiner Name	
Attorney Docket Number	044595-5004

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
S.A.		US- 5,647,025	07/08/1997	Frost et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner  
SignatureDate  
Considered

9.20.04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

# INFORMATION DISCLOSURE CITATION

(Use several sheets if needed)

PTO Form 1449

Attorney Docket No.  
044595-5004

Application No.  
Not Yet Assigned

Applicants:  
Arthur W. WETZEL et al.

Page 1 of 4

Filing Date:  
Concurrently Herewith

Group Art Unit:  
Not Yet Assigned



## U.S. PATENT DOCUMENTS

*Examiner Initial	Document Number	Date	Name	Class	Sub Class	Filing Date
S.A	3,999,047	December 21, 1976	Green	235	151.3	November 25, 1974
	4,150,360	April 17, 1979	Kopp et al.	340	146.3	December 14, 1977
	4,199,748	April 22, 1980	Bacus	340	146.3	February 3, 1978
	4,213,036	July 15, 1980	Kopp et al.	235	92	December 27, 1977
	4,523,278	June 11, 1985	Reinhardt et al.	364	413	June 7, 1984
	4,742,558	May 3, 1988	Ishibashi et al.	382	56	February 7, 1985
	4,779,151	October 18, 1988	Lind et al.	360	92	July 31, 1985
	4,965,725	October 23, 1990	Rutenberg	364	413.1	April 8, 1988
	5,068,906	November 26, 1991	Kosaka	382	48	March 27, 1989
	5,072,382	December 10, 1991	Kamentsky	364	413.08	October 2, 1989
	5,073,857	December 17, 1991	Peters et al.	364	413.1	August 28, 1989

## FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Sub Class	Translation YES NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

S.A	"An Efficient Method for Automated Segmentation of Histochemically Stained Slides", Gaddipati et al., IEEE-EMBC and CMBEC (1995)
S.A	"Automatic Threshold Selection Using Histogram Quantization", Wang et al., Journal of BioMedical Optics, Vol. 2, No. 2 (April 1997)
S.A	"FSED-Feature Selective Edge Detection", Borga et al. (2000)
S.A	Illumea Product Group Internet Page < <a href="http://www.illumea.com/800-823-3203/products/">http://www.illumea.com/800-823-3203/products/</a> >

Examiner

*Spi Lpr*

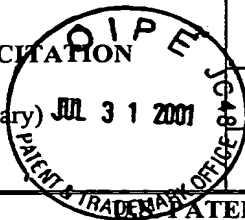
Date Considered

9,20,04

Examiner:

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)	Attorney Docket No. 044595-5004	Application No. Not Yet Assigned
Applicants: Arthur W. WETZEL et al.		
PTO Form 1449	Filing Date: Concurrently Herewith	Page 2 of 4 Group Art Unit: Not Yet Assigned



**PATENT DOCUMENTS**

*Examiner Initial		Document Number	Date	Name	Class	Sub Class	Filing Date
S.A		5,099,521	March 24, 1992	Kosaka	382	6	November 21, 1988
		5,107,422	April 21, 1992	Kamentsky et al.	364	413.08	September 14, 1990
		5,123,056	June 16, 1992	Wilson	382	6	February 2, 1990
		5,143,193	September 1, 1992	Geraci	194	212	May 14, 1991
		5,163,095	November 10, 1992	Kosaka	382	6	February 26, 1991
		5,216,500	June 1, 1993	Krummey et al.	358	93	July 15, 1991
		5,216,596	June 1, 1993	Weinstein	364	413.02	January 5, 1990
		5,218,645	June 8, 1993	Bacus	382	6	March 29, 1991
		5,252,487	October 12, 1993	Bacus et al.	436	63	January 27, 1993
		5,257,182	October 26, 1993	Luck et al.	364	413.1	January 29, 1991
		5,260,871	November 9, 1993	Goldberg	364	413.02	July 31, 1991
		5,268,966	December 7, 1993	Kasdan	382	6	October 1, 1991

**FOREIGN PATENT DOCUMENTS**

Document Number	Date	Country	Class	Sub Class	Translation YES NO

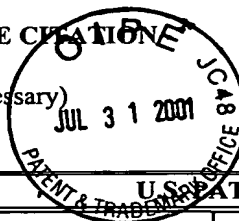
**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

S.A	<i>"Biomarkers of Premalignant Breast Disease and Their Use as Surrogate Endpoints in Clinical Trials of Chemopreventive Agents"</i> , Boone et al., The Breast Journal, Vol. 1, No. 4 (1995)
S.A	<i>"Development of Breast Cancer Chemopreventive Drugs"</i> , Kelloff et al., Journal of Cellular Biochemistry, 17G:2-13 (1993)
S.A	<i>"Development of Surrogate Endpoint Biomarkers for Clinical Trials of Cancer Chemopreventive Agents: Relationships to Fundamental Properties of Preinvasive (Intraepithelial) Neoplasia"</i> , Boone et al., Journal of Cellular Biochemistry, Supplement 19:10-22 (1994)

Examiner: <i>S. A. [Signature]</i>	Date Considered: <i>9.20.04</i>
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	



<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary) <b>PTO Form 1449</b>	Attorney Docket No. 044595-5004	Application No. Not Yet Assigned
	Applicants: Arthur W. WETZEL et al.	
	Filing Date: Concurrently Herewith	Group Art Unit: Not Yet Assigned



Page 3 of 4

**U.S. PATENT DOCUMENTS**

*Examiner Initial	Document Number	Date	Name	Class	Sub Class	Filing Date
S.A.	5,287,272	February 15, 1994	Rutenberg et al.	364	413.01	October 11, 1989
	5,297,034	March 22, 1994	Weinstein	364	413.02	January 5, 1993
	5,313,532	May 17, 1994	Harvey et al.	382	15	October 28, 1991
	5,333,207	July 26, 1994	Rutenberg	382	6	September 14, 1992
	5,363,258	November 8, 1994	Coles et al.	360	92	May 19, 1993
	5,428,690	June 27, 1995	Bacus et al.	382	128	February 18, 1992
	5,471,561	November 28, 1995	Cowgill et al.	395	82	May 19, 1993
	5,473,706	December 5, 1995	Bacus et al.	382	133	March 14, 1994
	5,499,097	March 12, 1996	Ortyn et al.	356	372	September 19, 1994
	5,505,946	April 9, 1996	Kennedy et al.	424	195.1	April 1, 1994
	5,544,650	August 13, 1996	Boon et al.	128	632	February 14, 1994
	5,544,996	August 13, 1996	Castaldi et al.	414	280	March 22, 1995
	5,625,765	April 29, 1997	Ellenby et al.	395	135	November 8, 1994
	5,636,425	June 10, 1997	Best	29	407.04	March 22, 1996
	5,680,694	October 28, 1997	Best	29	701	March 22, 1996
	5,687,251	November 11, 1997	Erler et al.	382	133	February 21, 1995

**FOREIGN PATENT DOCUMENTS**

Document Number	Date	Country	Class	Sub Class	Translation YES NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

S.A.	"Markovian Analysis of Cervical Cell Images", Norman J. Pressman, The Journal of Histochemistry and Cytochemistry, Vol. 24., No. 1, pp. 138-144 (1976)
S.A.	"Quantitation of Preinvasive Neoplastic Progression in Animal Models of Chemical Carcinogenesis", Bacus et al., Journal of Cellular Biochemistry Supplements 28/29:21-38 (1997)

Examiner: <i>S. A. [Signature]</i>	Date Considered: <i>9, 20, 04</i>
------------------------------------	-----------------------------------

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b>  (Use several sheets if necessary)  <b>PTO Form 1449</b>	Attorney Docket No. 044595-5004	Application No. Not Yet Assigned
	Applicants: Arthur W. WETZEL et al.	
	Filing Date: Concurrently Herewith	PAGE 4 of 4  Group Art Unit: Not Yet Assigned

**U.S. PATENT DOCUMENTS**

*Examiner Initial		Document Number	Date	Name	Class	Sub Class	Filing Date
D. A		5,700,125	December 23, 1997	Falace et al.	414	276	March 27, 1996
		5,768,125	June 16, 1998	Zinger et al.	364	167.01	December 8, 1995
		5,784,162	July 21, 1998	Cabib et al.	356	346	December 12, 1995
		5,796,861	August 18, 1998	Vogt et al.	382	128	July 11, 1997
		5,835,620	November 10, 1998	Kaplan et al.	382	133	December 19, 1995
		5,838,837	November 17, 1998	Hirosawa et al.	382	284	April 8, 1996
		5,848,177	December 8, 1998	Bauer et al.	382	128	February 27, 1997
		5,933,519	August 3, 1999	Lee et al.	382	133	June 3, 1997
		6,031,930	February 29, 2000	Bacus et al.	382	133	August 23, 1996
		6,081,612	June 27, 2000	Gutkowicz-Krusin et al.	382	128	February 27, 1998
		6,101,265	August 8, 2000	Bacus et al.	382	133	March 3, 1997

**FOREIGN PATENT DOCUMENTS**

Document Number	Date	Country	Class	Sub Class	Translation YES NO

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

S.A	<i>"Analytical and Quantitative Cycology and Hiscology"</i> , Chromatin Texture Measurement by Markovian Analysis, Dawson et al.
S.A	<i>"The Image Processing Handbook"</i> , John C. Russ – 2nd ed.
S.A	<i>"Segmentation of Mammograms Using Multiple Linked Self-Organizing Neural Networks"</i> , Dance et al., Med. Phys. 22(2) (February 1995)
S.A	<i>"Hough Spectrum and Geometric Texture Feature Analysis"</i> , Zhang et al.
S.A	<i>"Cervical Cell Recognition and Morphometric Grading by Image Analysis"</i> , James W. Bacus, Journal of Cellular Biochemistry, Supplement 23:33-42 (1995)
S.A	<i>"Detection and Characterization of Microcalcifications in Mammographic Images"</i> , Pereira et al.

Examiner:	Date Considered: 9.20.04
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	